E/CONF.39/B/74
21 Nov.1962
ORIGINAL : ENGLISH

UNITED NATIONS CONFERENCE
ON THE APPLICATION OF SCIENCE AND TECHNOLOGY
FOR THE BENEFIT OF THE LESS DEVELOPED AREAS

Agenda Item : B.3

I.L.O.

THE ROLE OF MANAGEMENT IN ECONOMIC DEVELOPMENT

By International Labour Office

Papers have been contributed to the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas as working papers for that Conference. They are published as presented by the contributors, and the contents and the views expressed are those of the contributors. (See notes overleaf.)

NOTES

1. Papers selected for inclusion in General Sessions will be available at the Conference in the following official languages of the United Nations: English, French, Russian and Spanish.

2. Papers selected for inclusion in Specialized Sessions will be available at the Conference in only one of the above official languages.

3. Summaries of all papers, as submitted by contributors, will be available at the Conference in the following official languages of the United Nations: English, French, Russian and Spanish.

4. Papers and summaries will not be available for general distribution in advance of the Conference. They will be published in advance in limited quantities only for the use of delegations of participating governments and of other authorized participants. Post-Conference publication and general distribution of the Conference Proceedings will follow United Nations practices as laid down by the United Nations Publications Board.

The Role of Management in Economic Development

by

International Labour Office

1. Introduction

Economic development may be defined as a process which results in a sustained long-term increase in real national income per caput. This rise may be brought about by one or all of the following - re-allocation of economic resources, an increase in the quantity and quality of these resources and improved technology. Management in both the public and private sectors are in a position to influence these determinants.

Management has been defined as "the hierarchy of individuals who perform specified critical functions in the organisation".[1] For the purpose of this paper, "organisation" includes any organisation whose purpose is the production of goods and services for sale, irrespective of its ownership, public or private. The functions of management include the handling of uncertainty, planning, innovation, co-ordination, control and administration.

2. Management and the Determinants of Economic Development

(a) Allocation of Resources

Resources, technology and demand will determine what can be produced and sold as well as the optimum mix of products and the optimum mix of resources used in their production. Most countries fail to attain the optimum product and resource mixes, the developing countries being further from the optima in most cases than the highly developed ones.[2] This means that output can often be expanded by re-allocation of resources by direct decision or by the removal of market imperfections. As new resources become available, their allocation, whether via the market mechanism or government decision, should be to those activities which make the greatest contribution to total output. The changing availability of resources and advances in technology continually alter the optimum resource allocation pattern for a closed economy. Developments abroad complicate the picture still further for countries with a substantial foreign trade.

---

[1] F. Harbison and C. A. Myers, Management in the Industrial World, (New York: Mc Graw-Hill, 1959), p.8.

[2] G. M. Meier and R. E. Baldwin, Economic Development: Theory, History, Policy, (New York: Wiley, 1957), pp. 316 - 319.
R. S. Eckhaus, "The Factor Proportions Problem in Underdeveloped Areas", American Economic Review, XLV, 4 September 1955, pp. 539 - 565.

An additional problem arises with respect to countries largely dependent on a single commodity. Diversification may be advisable to reduce the fluctuations in national income consequent on this dependence. However, a diversification programme may well re-allocate resources away from the optimum. In such cases, some form of stabilisation arrangement may be preferable to large-scale diversification.

Resource allocation is the result of decisions as to what shall be produced, how it shall be produced and what quantity shall be made. Such decisions are normally made by the managers of organisations. These decisions may be circumscribed by governmental restrictions on raw material imports, etc. or by fiscal policies designed to encourage or discourage the use of particular resources. The freedom of action of individual managers will vary from one country to another according to its particular circumstances and the degree to which its economy is controlled. The decision-maker may be the Minister of Industry, the head of a planning board, a board of directors or an owner-manager. Decisions on production and investment are allocation decisions and in many cases involve innovation and risk-taking. How good or bad these decisions are, will depend on how well the decision-makers know their job and the accuracy of the information on which they base their decisions. Reduction of uncertainty and the systematic evaluation of all the factors involved will bring resource allocation closer to the optimum. Management skill is therefore very closely connected to the problem of optimum resource allocation.

(b) Quantity and Quality of Resources

The basic economic resources are natural resources, capital and manpower; these will be discussed separately below.

(i) Natural Resources. The production process is largely one of transforming materials from the state in which they are found into the form desired by the consumer. For a given state of technology the quantity and quality of natural resources available place restrictions on the possibility of expanding output. In many cases these restrictions may be removed by surveys which expand the known sources of raw materials. Technological changes may make previously known raw materials more accessible or, more likely, make it possible to use a previously valueless material. The key point is that the actual natural resources of a country are fixed by nature but the known resources may be expanded by surveys and exploration and the uses of known resources may be widened by technical advances. These technical advances are part of the innovative function of management. Resource conservation, i.e. the most effective use of existing resources, is also a matter within the sphere of managerial control.

(ii) Capital. Output per unit of manpower tends to be directly proportional to the amount of capital used per unit of manpower. One of the principal ways of increasing output is therefore to increase the quantity of capital employed. This may or may not involve a change in technology; in many cases a change in technology which will improve the efficiency of utilisation of natural resources and manpower is only possible if capital can be increased. Domestic capital can only originate from savings, i.e. from production which is not consumed, although the savings for investment may be in the present or the future. However, the relationship between income and savings and between capital formation and economic growth is not always as simple and automatic as is often assumed.[3]

Managers are important in the process of capital formation. In the private sector they have a substantial voice in the use of profits, particularly if the managers are also the owners, in the determination of how much is distributed to the owners and how much is re-invested in the organisation. Of course, the political and economic stability of the country will have a strong influence on the magnitude of the profit and the willingness to re-invest it. The economic justification for large profits in developing economies is that it allows rapid capital accumulation through savings and investment which would be unlikely if profits were lower and the wage share of the national income was higher. (There are social arguments against this which will not be discussed here). Heads of enterprises in the public sector have less influence over the disposal of profits as these become a political issue. Nevertheless, their recommendations undoubtedly have some impact.

Capital is only meaningful when it is translated into productive equipment such as plant and machinery. Managerial knowledge and skill play a major part in determining the effectiveness with which the capital is used. An efficient management

---

[3] "Quantitative Aspects of the Economic Growth of Nations: VI, Long Term Trends in Capital Formation Proportions", Economic Development and Cultural Change, IX, 4, Pt. II, July 1961, p. 56.

can obtain the same output with perhaps 50 per cent. less investment in machines than management which does not think systematically and does not employ rational processes of planning and control. The important thing is that managers should possess the skill before embarking on programmes of capital investment and not, as is often the case in developing countries, make the investment then find themselves unable to utilise it to the best advantage.

(iii) Manpower. Among the determinants of output is the size and quality of the labour force. Provided that the resources are available, output may be expanded by bringing into the employed labour force people who were previously inactive from the economic point of view. Far more important for the developing economies is the improvement of the quality of the manpower employed. Management has an important role to play in this respect. It can increase the amount of labour utilised by a given amount of capital equipment by deciding to work a second or third shift. It can contribute to the improvement of skill by providing in-plant training, by supporting vocational training institutions and apprenticeship schemes, by improving the physical conditions under which labour has to operate, and by improving the physical condition of labour by the provision of health services, meals, etc. Perhaps management's most important contribution, however, lies in its ability to improve the management component of the labour force by management training courses and executive development schemes.

(c) Technology

A given technology, by prescribing the way in which resources are combined, sets an upper limit to production per unit of input but it does not ensure the attainment of this upper limit. Changes in technology occur as the result of domestic research and invention and by "importing" technology developed overseas. Technological change can play a major part in eliminating the disparities that exist in national income per caput in different countries.

The technology used in a country for a given type of production is determined largely by managerial decision. Within the boundaries of given natural resources and available capital and manpower skills, management determines not only the production process to be used but also the effort to be put into improving the technology, either by research or by inquiries overseas to find out what processes are available.

In most industries there is a wide choice of processes and equipment ranging from specialised, automatic, capital-intensive types to much simpler and less capital-intensive types. In some cases the complex equipment is selected by developing economies more as a status symbol than for its utility. For a given capital expenditure the simpler machinery may well be capable of more output even though it involves the use of considerably more labour, not usually a scarce commodity in developing economies. In addition, skilled technicians required for maintenance and operation are likely to be in short supply and sophisticated equipment badly maintained is unlikely to operate efficiently. In choosing equipment and technology management usually has the determining voice but the choice must be made with full appreciation of all the factors involved, including the broader employment objectives of the economy as a whole.

3. Managerial Attributes Necessary for Progress

The skills of the people of a country are important in the process of development; equally important are the attitudes which determine whether existing opportunities are grasped and new ones sought. Development is encouraged or impeded according to the extent to which those who control the resources of the economy have an attitude of mind favourable to change, a breadth of outlook and a capacity for long-term thinking, and the necessary knowledge and skills.

(a) An Attitude of Mind Favourable to Change

An industrial society, the goal of most developing economies, makes demands on its members which are different from and often incompatible with those made by a traditional and predominantly agrarian society. For example, the organisation, discipline and mobility of the labour force, the purpose and scope of the educational system, the division and specialisation of labour, and the ethical and legal codes which permit impersonal business relationships are all important in an industrial society. They are unlikely to occur in an agrarian, traditional society.[4]

An industrial society imposes a discipline on the owner and manager as well as on the worker. The dependence of the entrepreneur, who is often not a technical man, on the knowledge and skills of his employees at all levels curtails

---

[4] C. Kerr, J.T. Dunlop, F.H. Harbison and C.A. Myers, Industrialism and Industrial Man, (Cambridge, Mass.: Harvard University Press, 1960). Chapter 2.

his freedom of action with regard to the management of his enterprise. As industry develops he is likely to find himself having to accept the views of others, whether they be subordinate managers, technicians or workers' organisations. If industrialisation is to be successful, management must accept these changes and the sharing of some of the managerial authority. For these reasons, management must be prepared to change, both technically and with respect to the authority relationships within their own organisations.

(b) Breadth of Outlook and Long Term Thinking

It is important for the individual manager to see the economy from a comprehensive viewpoint. Without this he cannot assess the impact on his own organisation of the changes which are taking place nor can he see the influence of his own actions on the economy as a whole. Economic development is not a simple process, it is a highly complex one in which many factors interact on one another.

Development is a process which takes place over a long period of time and short-run thinking may impede its progress in the long run. A long term perspective implies a certain amount of faith in the future, it is not easily acquired when political and economic stability have been rare. It is the responsibility of government to do what it can to reduce uncertainties but management is not without its influence on government and it has a great interest in the type of stability that permits sustained economic growth. If management and other leaders of society do not make known their faith in the future and their willingness to act on it, there is little likelihood that anyone else will see any reason to do so.

(c) Necessary Knowledge and Skills

Management's ability to fulfil its function depends basically on its capacity to understand and master two elements. The first is the complex of factors, internal and external to the enterprise, which may affect its productivity, some of which may be beyond the control of the individual management, but nevertheless must be taken into account. These factors are economic, commercial, financial, technical, social and psychological and may include considerations imposed by government policy and shortages or deficiencies in material and human resources.[5]

---

[5] Conclusions, Technical Meeting on Problems of Productivity Improvement in Certain Countries, (Bangalore, 1959), para. 50. Quoted in I.L.O. Raising Productivity, (Geneva: I.L.O. 1959), p. 18.

The second element is management's knowledge and understanding of management techniques such as production control, cost accounting, quality control, market research, work study, preventive maintenance, etc. By having a full knowledge of the organisation's economic, political and social environment and by skill in the use of management techniques, a systematic approach may be made. Information needed for rational decision-making may be acquired, difficulties can be seen and avoided or overcome by proper planning and the organisation's activities controlled so as to ensure the maximum benefit to its owners and to the economy. This is true of any enterprise anywhere but it rapidly becomes more important as enterprises grow larger and more complex.

There is a tendency to assume that the fact of holding a position of authority means, ipso facto, that the holder has the knowledge commensurate with it. The typical manager believes that this is true, at least in the absence of any evidence to the contrary. In a well-protected market, even a poor manager can run an organisation at a profit and even if his shortcomings are pointed out to him his attitude may well be "Why bother? I'm doing alright". In the final analysis, little can be done to improve managerial performance and through it, to achieve accelerated economic development, until the attitudes of those with the power of decision and action are transformed so that they are favourable to progress.

In management, as in other fields, experience is an important teacher but it is not the only teacher nor is it always the most efficient. The process of managerial self-improvement is going on in most industrialised countries and is undoubtedly one of the important reasons for the high level of productivity in these countries.

4. Conclusion

The role of management in economic development is that of the agent which controls in varying degrees a number of the major determinants of the level of development, in association with government - sometimes as part of it. It exercises that control in the course of managing the enterprises of the economy, public and private. Management's role in development is a major one, but it can be played actively or passively, and it can be positive or negative in its contribution to the over-all effort. The role has great potential, but its real value depends on management itself. Given the appropriate attitudes and ever improving skills, management can play a

leading role in the development process. It is certainly quite true that management is not the only important agent of development, and improving management is not the only action that must be undertaken to bring about viable growth. As one writer has metaphorically put it, "the lock which shackles the economies of underdeveloped countries will be opened not by a 'key' but by a 'combination lock' ...".[6] Management is a vital element in the combination.

---

[6] R.S. Roberts, Jr., Economic Development, Human Skills and Technical Assistance; a study of I.L.O. technical assistance in the field of productivity and management development. (Geneva, Librairie Droz, 1962), p. 145.